## (19) World Intellectual Property Organization International Bureau



## ) (1801) 1814) 181 | 1814) 1814) 1814) 1814) 1814 | 1814 | 1814) 1814 | 1814 | 1814 | 1814 | 1814 | 1814 | 1814

(43) International Publication Date 16 June 2005 (16.06.2005)

**PCT** 

## (10) International Publication Number WO 2005/054233 A1

(51) International Patent Classification<sup>7</sup>: A61K 31/443, 31/445, A61P 3/10

C07D 405/12,

(21) International Application Number:

PCT/GB2004/004956

(22) International Filing Date:

25 November 2004 (25.11.2004)

(25) Filing Language:

English

(26) Publication Language:

English

(30) Priority Data:

0327760.5

29 November 2003 (29.11.2003) GF

- (71) Applicant (for AE, AG, AL, AM, AT, AU, AZ, BA, BB, BE, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CY, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, SZ, TJ, TM, TN, TR, TT, TZ, UA, UG, UZ, VC, VN, YU, ZA, ZM, ZW only): ASTRAZENECA AB [SE/SE]; SE-151 85 Sodertalje (SE).
- (71) Applicant (for MG only): ASTRAZENECA UK LIM-ITED [GB/GB]; 15 Stanhope Gate, London Greater London W1K 1LN (GB).
- (72) Inventors; and
- (75) Inventors/Applicants (for US only): JOHNSTONE, Craig [GB/GB]; AstraZeneca R & D Alderley, Alderley Park, Macclesfield Cheshire SK10 4TG (GB). MCK-ERRECHER, Darren [GB/GB]; AstraZeneca R & D

Alderley, Alderley Park, Macclesfield Cheshire SK10 4TG (GB). PIKE, Kurt, Gordon [GB/GB]; AstraZeneca R & D Alderley, Alderley Park, Macclesfield Cheshire SK10 4TG (GB).

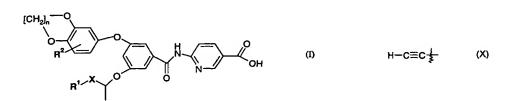
- (74) Agent: ASTRAZENECA; Global Intellectual Property, SE-151 85 Sodertalje (SE).
- (81) Designated States (unless otherwise indicated, for every kind of national protection available): AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW.
- (84) Designated States (unless otherwise indicated, for every kind of regional protection available): ARIPO (BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

## Published:

with international search report

For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.

(54) Title: BENZOYL AMINO PYRIDIL CARBOXYLIC ACID DERIVATIVES AS GLUOKINASE ACTIVATORS



(57) Abstract: Compounds of Formula (I) wherein:  $R^1$ -X- is selected from: methyl, methoxymethyl and Formula (X);  $R^2$  is selected from hydrogen, methyl, chloro and fluoro; n is 1 or 2; or a salt, pro-drug or solvate thereof, are described. Their use as GLK activators, pharmaceutical compositions containing them, and processes for their preparation are also described.

